

Foundations

1919 - 1929

Most modern analysts of the newborn National Park Service have written of the agency's wholehearted support of recreational tourism as a strategy designed to gain support of the populace, thereby gaining congressional funding for park improvements, operations, and additions. The first NPS directors certainly pursued this political strategy, but while steeped in progressive concepts of control and restraint, they never questioned economic assumptions of world capitalism that had led the American West to this juncture in its history. Such questions and viable land-management alternatives would await notions of ecological maintenance that did not achieve some measure of popular acceptance until the 1960s. Until then, creation, extension, and administration of the National Park System and Grand Canyon National Park would proceed with few challenges, along established lines of western economic development.

Park supporters like John Muir, J. Horace McFarland, Frederick Law Olmsted, Jr., and the men who would lead the new federal bureau expressed philanthropic ideals in their arguments for a separate management agency to preserve scenic America, but they emphasized the economic potential of selling unaffected scenery. For this reason alone they were joined by the West's railroads, "good roads" and civic associations, chambers of commerce, transportation companies, and prospective concessioners who ardently supported the parks as people's playgrounds and tourist magnets promising to augment business opportunities. All were concerned for efficient administration, but when these varied interests met to discuss pragmatic issues, as they did annually during 1911-17, efficient exploitation and construction of facilities typical of early twentieth-century resorts dominated their agendas.¹

The first federal officials charged with systematic management of the national parks, in fact, expressed their beliefs, mission, and objectives in terms familiar to today's businessmen. In 1913 Secretary of the Interior Franklin Lane wrote that scenery, as much as real estate, minerals, and timber, was a natural resource that required economic development, and that its worth derived from national and

international markets.² Mark Daniels, first superintendent of the national parks in 1914-15, while insisting on national parks' contributions to public knowledge and health, emphasized marketing and structural goals to divert international scenic consumers to the western United States. To that end, Daniels argued that a collaborative federal government must be willing to subsidize development of the market and the products (i.e., the parks) if they proved unable to support themselves. Daniels's successor, Robert B. Marshall, also highlighted the importance of federal subsidies, national advertising, and structural improvements to entice consumers. The National Park Service enabling act itself, imparting the will of Congress as well as that of boosters who drafted the bill, reveals strictly anthropocentric precepts of resource conservation similar to the early forest service mission, simply substituting the nontraditional economy of tourism for extractive multiple use.3

Stephen Mather and Horace Albright, NPS directors responsible for interpreting and implementing the act, would refine and institutionalize these economic aspira-

tions.⁴ Mather, a mining executive prior to becoming the first NPS director in 1917, and

Figure 5.NPS staffin front ofthe 1921 park administation building in 1930. GRCA 9493.

Albright, a mining executive following his retirement as director in 1933, were personally inclined to frame the purposes, needs, operations, and growth of the park system in business terms. They were supported by federal legislators and presidents whose business had long been business, whether through laissez-faire policies or direct assistance. The "founding fathers" therefore proved culturally consistent in ensuing years as they argued their agendas in terms of market share and advertised the parks through public address, the print media, and associated business and civic boosters. They reported to the secretary of the interior with facts, graphs, statistical tables, and market trends as if accounting to a board of directors, and they established the number of consumers visiting the parks each year as their primary measure of success. They understood that they were selling scenery, that there were competitors in the international marketplace eager for the same customers, and that others in the West, including competing federal agencies, would like to acquire the parks or at least limit their proliferation.⁵

Early NPS reporting techniques and measurement standards reflected the first directors' administration of the park system as an expanding, federal-private business venture. They rarely varied from their perceptions of visitors as consumers to be satisfied through structural enhancements and services. Expansive, grandiose western landscapes represented the principal merchandise, worthy of enhancement through bucolic service villages, rustic architecture, scenic drives and trails, educational programs, and creature comforts. It made sense to enlarge the products and expand their number through boundary extensions and new additions to envelop landscapes that had not yet been visually despoiled and to protect them from inholders, extractive users, and overdevelopment, as well as from natural enemies like fire, insects, disease, and destructive exotic species.

With efficient organizations at headquarters and within the parks, 6 the first NPS directors invested most of their time and energy on marketing goals. Mather used his considerable sales skills to sell Congress as well as businessmen on scenery's economic value. He courted greater appropriations from the former and substantial investments for firstclass park accommodations from the latter by offering a guaranteed market through monopolistic and long-term (though price-controlled) contracts. He wooed the sympathy of regional businessmen in gateway towns with assurances that tourists would spend most of their vacation dollars before reaching the parks. One of Mather's more consistent arguments in this vein was that the parks represented "scenic lodestones," and that "every visitor is a potential settler, a possible investor. Above all, he is a satisfying source of business."8

Concurrent with their efforts to sway congressmen and

businessmen, Mather and Albright launched a multipronged strategy to attract visitors through direct advertising, competitive pricing, convenient park access, and comfortable accommodations. To directly lure visitors, the NPS joined with private partners and the Government Printing Office to circulate an endless stream of press releases, park bulletins, informational brochures, pamphlets, and guidebooks. They also supplied materials for lectures, lantern slides, traveling art exhibits, and motion pictures. The directors liked to call these materials "informational" or "educational" data, but most could not be distinguished from creative sales literature. 9 Mather urged expansion of the See America First campaign, which began as a railroad promotion but proved an even more viable marketing tool in the dawning era of automotive travel. This campaign, which tapped heavily into Americans' patriotism, was a direct crusade to divert worldwide tourists to the western parks and, after World War I, to dissuade wealthier American tourists from returning to Europe for their traditional grand tours. "Buy American" proved to be one of Mather's more convincing messages, and to sell it better, he lobbied strenuously for a U.S. Travel Division within the National Park Service to complement the railroads' own travel agency, the Bureau of Service: National Parks and Monuments.10

Aside from direct advertising campaigns, the early NPS paid keen attention to competitive pricing by pegging the cost of entering and using the parks well below amounts charged in regional marketplaces. Mather coaxed federal subsidies to help keep prices down, reporting mounting park revenues from motor vehicle "licenses," concession fees, and special-use permits, and argued that the popular parks, at least, would thereby support themselves once Congress funded initial improvements. He then backed away from the self-sufficiency argument once appropriations began to flow more freely. Mather also rethought license fees—as high as \$10.00 in parks with developed roads—in terms of visitational deterrents, which caused him to reduce prices substantially in 1926. He understood that lesser fees would reduce revenues but believed the difference would easily be made up in tourist numbers, escalating handsomely through the 1920s. He was correct, although the volume of tourists soon revealed a perpetual need for new construction and maintenance that by the early 1930s caused Albright to drop Mather's assertion that each park unit required only one physical facelift to be prepared for the future. 12

As for its private partners, the park service guaranteed concessioners a "reasonable profit" by allowing them to charge prices comparable to similar products and essential services in surrounding towns, with higher margins for luxury items. The park service also offered some protection

from business downturns by its willingness to adjust franchise fees and formulas. In 1923 the park service began to protect its own interests by auditing concession accounts to ensure accurate fee payments as well as reasonable rates. It also helped concessioners and furthered its own goals by satisfying customers with developed camps, trails and bridle paths, and educational programs, all available at no charge. ¹³

Another sales element, product access, was addressed with the most ambitious road construction program yet undertaken by the federal government in the American West. Just as Mather and Albright had parlayed varied interest groups into the creation of the National Park Service, so they turned regional commercial groups interested in building better western roads to the benefit of the park system. Mather, an avid motorist, argued in terms of the entire region when he advocated an "Interpark System" as early as 1915 in order for the tourist "to see as much as he can in the shortest possible time."14 His concept grew by the early 1920s into a 6,000-milelong, counterclockwise National Park-to-Park Highway beginning at Denver and taking in as many of the western parks as possible, including Grand Canyon along its southern sweep. Not content with this grand loop, he helped promote shorter, concentric "circle tours" requiring reconstruction of subregional highways and, ironically, he convinced the railroads to help bring such automotive tours to fruition. The entire concept in the early 1920s was more an argument than an accomplished fact, a way of prodding Congress, states, and counties to fund construction, and it worked. By the late 1930s the first western interstate system of highways engineered to automotive standards was in place.¹⁵

After successfully promoting modernization of western interstate highways and approach roads as conduits for park visitors, the NPS used such improvements to press for better inner-park entrance roads, scenic drives, and service roads. According to Mather, it was ludicrous to entice tourists along paved highways up to park boundaries, then set them adrift on rutted tracks worn by horse-drawn conveyances from the last century. Arguing that park thoroughfares were "in the nature of toll roads," he complained that many units were unable to charge a license fee due to their roads' miserable condition, and that motorists who did pay such fees were not getting their money's worth. 16 By submitting statistics proving that by 1920 most park visitors arrived in cars and by proposing separate road budgets beginning in 1922, he was able to secure a three-year construction program in 1924 totaling \$7.5 million. In the same year, the NPS began to work with the Bureau of Public Roads (BPR) to oversee construction, and in the following

year concluded a formal agreement, continuing to this day, whereby the agency would undertake major work on all national park roads. By 1932 NPS budgets included \$5 to 7.5 million per year for such construction, and the BPR had built, rebuilt, or otherwise improved 360 miles of park roads with another 430 miles in progress. ¹⁷

EARLY CONCERNS

Grand Canyon's first two decades of administration under the National Park Service illustrate the philosophy, organization, wish lists, budgets, and priority goals of the larger bureau. Stephen Mather's vision reflected his euphoria with acquisition of one of the finer western landscapes, as he outlined a series of developmental projects befitting an allseason national "resort," the term he and others used in reference to Grand Canyon National Park. Priorities included

refurbishment of Hermit Rim Road to automotive standards, reconstruction of James Thurber's old

Village-Grandview stage road with an extension to Desert View, and a new road that would connect Grand Canyon Village to Supai via the Topocoba Trail. "Imperative" needs included North Rim scenic drives to Point Sublime and Cape Royal. Mather wanted an "extensive trail system" to include not only reengineered North and South Bass, Tonto, Grandview, North Kaibab, and Tanner Trails, but new paths from the South Rim to Bright

Angel Creek and along the North Rim from
Bright Angel Point to Swamp Point. He wanted
a good trail from Tiyo Point to the river in order
to create a Hermit-Tiyo transcanyon corridor.
He contemplated additional trails to "develop"
the South Rim from Cataract Creek to the Little

Colorado River and suspension bridges across the Colorado River for the Bass, Hermit, and Bright Angel corridors. Trails would be enhanced with "chalets" or camps at Bright Angel and Swamp Points and inner-canyon camps at the mouths of Bright Angel and Shinumo Creeks. Only after outlining these plans for enhanced access and visitor comfort did Mather cite needs for administrative sites, campgrounds, water supplies, and other utilities. Protection of the natural environment did not make his wish list. ¹⁸

These dreams reflected the larger NPS vision for the western parks. Some would eventually be realized, but for Grand Canyon's first superintendent, pretentious schemes took a back seat to more pressing administrative problems. William Peters arrived at the South Rim in August 1919 to find very little of a federal presence. There were only one or two primitive administrative cabins and no federal housing, campgrounds, or services. There were no utilities other than those of the Santa Fe Railroad, which were antiquated and

inadequate, and a rickety, 30-mile-long telephone system inherited from the forest service. There were no automotive roads inside park boundaries or within a 200-mile radius other than the National Old Trails Highway (U.S. 66) 70 miles to the south and the Arrowhead Highway (U.S. 91) more than 100 miles to the northwest. Mining claims still littered the South Rim and Bright Angel Trail, which remained a county toll road. Local residents ignored conservation policies as well as federal administrators, whose recourse in law hinged on an often uncooperative county judiciary. Visitors had few rules, relied on concessioners for information, and suffered unsanitary conditions at the village stemming from open-air incinerators, pit toilets, impromptu trash heaps, no zoning, no building codes, and unfettered livestock.

Under these conditions, Peters had every reason to be as happy with concession partners as the forest service had been, because without them administrators had no hope of meeting demands of escalating visitation. At the South Rim the NPS collaborative strategy resembled that of the forest service understanding forged in 1908 whereby concessioners would supply visitor accommodations, employee housing, groceries, meals, utilities, supplies, souvenirs, and entertainment. Major differences included the NPS commitment to monopolies and multi-year contracts, and the promise for greater business volume through advertising, access, zoning, and building standards. One of Peters's and subsequent superintendents' more important tasks was the coordination of these services and the execution of agreements that would allow administrators to get on with their part of the bargain.

The Fred Harvey Company and Santa Fe Railroad remained the most important private elements. Under the direction of customer-oriented company presidents Ford Harvey (1901-28) and Byron Harvey (1928-46), the concessioner had since 1905 furnished quality services as well as utilities at the South Rim and within the canyon. By 1929 these would consist of overnight accommodations at the El Tovar Hotel (1905), Bright Angel Hotel (1896) with adjacent tent cabins (1905), Hermit Camp (1912), Phantom Ranch (1922), and the Motor Lodge (1927); meals and snacks at the El Tovar, Bright Angel, Hermits Rest (1914), and inner-canyon camps; supplies and souvenirs at the Hopi House (1905), Lookout Studio (1914), and Hermits Rest; and excursions ranging from South to North Rims and from Topocoba Hilltop to the Hopi villages.¹⁹ Understandably, Peters, guided by Mather, hurriedly consummated a contract with the Fred Harvey Company in 1920 to continue and augment these services for a period of twenty years. Terms of this agreement, and those that followed for other concessioners, reveal the early NPS preoccupation with administrative control, aesthetic construction, and quality service rather than direct income for the park. It allowed "very considerable exemptions" for capital improvements, ownership of which remained with the Santa Fe Railroad, and required that only a small percentage of gross receipts be paid in franchise fees. In return, the park service secured the promise of substantial investment and final approval over building plans, architectural style, materials, and location. ²⁰

Administrators executed agreements with three more South Rim concessioners for relatively minor services, for little reason other than to respect private interests ensured by the park's enabling act and avoid the appearance of granting all tourism services to one corporation. The Babbitt-Polson Company of Williams had operated a small



general store prior to 1919 and in April 1921 contracted to continue this business from a small building near the park's first formal campground, southeast of the Fred Harvey Garage. Their twenty-year contract resembled that of the

Figure 7. Fred Harvey tour buses line up from the garag toward the EITovar, ca. 1923. Buses like these first appeared at the South Rim ca. 1914. GRCA 3552; Fred Harvey Company photo

Fred Harvey Company, with a sliding scale of franchise fees based on a percentage of gross sales. In 1923 Babbitt Brothers Trading Company acquired the contract from the former partnership and in 1925-26 built a new store within the administrative district at what would become the intersection of Center and Village Loop Roads. 22

John G. Verkamp's sale of Indian artifacts and other "curios" from his single shop and residence east of the Hopi House dated to 1905, and with arrival of park managers he continued to operate under annual permits for which he paid only \$100 per year. Officials chose these year-to-year agreements until 1936 because they considered Verkamp's operation superfluous and eyed the store's favorable rimside location for an additional Harvey hotel and casino. ²³ Emery and Ellsworth Kolb had opened their photographic studio in a tent beside Ralph Cameron's hotel in 1903 and built the present frame studio beside the rim in the following year. This, like the Babbitt and Verkamp stores, was

simply a niche business, with the Kolbs and Emery's wife Blanche photographing mule parties embarking down the Bright Angel Trail, selling a few photo-related souvenirs, and, after 1912, delivering popular daily lectures on their trip down the Colorado River. Early on, Emery negotiated a multiple-year contract which, upon renewal for ten years in 1930, required payment of 4 percent of gross profits, excluding earnings from lectures.²⁴

Commercial services at the North Rim through most of the 1920s corresponded to administrators' concept of more rustic services for the less-frequented area. Kanab residents

Edwin Dilworth "Uncle Dee" Woolley and his son-in-law David Rust had offered outfitting services from Kanab to the vicinity of Bright Angel Point and down to Rust's camp since 1907 but discontinued their efforts by 1919. In the latter year, Uncle Jimmy Owens left the forest service's employ as a game warden but continued to offer hunting trips within the Kaibab National Forest, retaining his home base at Harvey Meadow until 1927 and grazing his crowdpleasing buffalo herd nearby. Arizona

Strip residents Aldus "Blondie" Jensen and wife Melissa, headquartered at the Woolley Cabin near the head of Rust's trail since 1915, offered similar saddle trips along the rim and down Bright Angel Creek. In 1922 Chauncey and Gronway Parry, automobile dealers based in Cedar City, Utah, began to include the North Rim in their public transportation network that embraced Utah's southwestern parks and monuments.²⁵

Elizabeth Wylie McKee operated the principal North Rim concession at Bright Angel Point from 1917 until 1927. Her father, William Wallace Wylie, had pioneered the "Wylie Way" concept of park concessions at Yellowstone in the 1880s, which consisted of a camp with a central dining room and primitive lodge flanked by individual tent cabins. At the request of the Union Pacific Railroad, Wylie opened a similar camp at Zion and Bright Angel Point in 1917, remaining to manage at Zion and entrusting the North Rim facility to his daughter. She acquired ownership upon her father's retirement in 1924 and managed the camp with the assistance of her son, Robert, and a small staff of local Mormon teens, while husband Thomas guided trips to Point Sublime and Cape Royal. Wylie opened the camp with the understanding that he would receive a long-term forest service contract, and McKee pressured Stephen Mather to grant one similar to those afforded South Rim concessioners so she could justify, plan for, and finance capital improvements, but throughout her tenure she received

only annual permits.²⁶

Administrators began to upgrade facilities at Bright Angel Point in early 1927 when they solicited bids for the North Rim's first permanent concessioner. Bids were strictly a formality, as it had been long understood that the Union Pacific would include the North Rim within its sphere of influence, which encompassed Zion, Bryce, and Cedar Breaks, once visitation justified capital expenditures. As expected, none of the small concessioners could afford the costly improvements specified in the request for proposal. Therefore, consistent with NPS practice, the McKees,

Jensens, and Parrys were forced to sell to the railroad's subsidiary Utah Parks Company. The McKees agreed to operate the Wylie Camp





through the 1927 season. The Parrys and Jensens did the same for a few more years, while Utah Parks Company's managers invested millions of dollars creating a smaller version of Grand Canyon Village with its centerpiece Grand Canyon Lodge, flanking duplex and deluxe cottages, utilities, employees quarters, postal and telegraph services, and visitor entertainments. Terms of the twenty-year contract, effective 1 January 1927, mirrored those of the Fred Harvey Company, though fees were based on a percentage of profits, not gross receipts. ²⁷

INITIAL NPS/CONCESSIONER RELATIONS

NPS actions to replace pioneer concessioners and establish lasting partnerships with larger corporations support the thesis of the parks as federal-private economic enterprises, but should also be viewed as necessary and expedient measures given the vision for the parks as well as increased visitation. Affiliations between the NPS and the Fred Harvey and Utah Parks Companies were more intertwined and symbiotic than public-private relationships today, partly because of the need for utilities and residential services that preoccupied administrators through the 1920s. At the South Rim, managers had inherited all the problems of a transient boomtown; they arrived without mandates or money to replace ailing private utilities necessary to satisfy residents' and visitors' demands. They had no choice but to tap into the concessioners' systems before gradually assuming these

responsibilities as appropriations became available.

Maintaining a consistent water supply posed the greatest challenge. By 1919 the Santa Fe Railroad was hauling 60-100,000 gallons of water per day from Flagstaff and Arizona's Chino Valley to tanks near Grand Canyon Depot, at a cost of seventy-five cents per thousand gallons. This manner of delivering water to the parched rim continued while the park service helped search for new sources. In 1927 they allowed the railroad to improve the flow of Indian Garden springs to 576,000 gallons per day and to develop plans that would lead to the South Rim's first dependable water supply in 1932. Meanwhile, NPS manual laborers dug wildlife tanks at outlying areas like Desert View and Pasture Wash, and the bureau purchased water at cost for its own village needs. The railroad also sold water to smaller concessioners, residents, and campers, all of whom filled their containers at tanks designed to service locomotives until pipes could be laid to catch up with village growth.²⁸

Sanitation posed as great an inconvenience and a more imminent threat to public safety. The Santa Fe Railroad had installed a septic system in conjunction with construction of the El Tovar in 1905, but subsequent connections to new facilities caused effluent to discharge into an open ditch beside the railroad tracks. In 1921 administrators began to employ Public Health Service inspectors, one of whom, H.B. Hammond, designed an activated sludge disposal plant that was built with federal funds appropriated in 1925. The plant went on line in late May 1926. An engineering marvel, it was designed to process eight times the volume of waste produced in that year, reclaimed 99 percent of used water, and, by 1930, supplied 120,000 gallons per day at a cost of 35 cents per thousand gallons for steam generation, irrigation, and flush toilets.²⁹

The railroad assumed responsibility for the disposal of solid wastes. Since the pioneer era, tourism operators and residents had informally designated a dozen or so open-air dumps scattered throughout the village and nearby forest, occasionally reducing volume by setting the unsightly piles ablaze. Through the early 1920s, concessioners and NPS personnel simply redistributed the garbage by loading it on flat cars and hauling it outside park boundaries where it was dumped along the tracks, a practice disturbing to the forest service as well as train passengers en route to a national park. Studies for an incinerator to serve the entire community began in 1925, and the new facility, funded entirely by the railroad, was completed in August of the following year. It included a state-of-the-art "can-smashing" and baling machine that reduced the tens of thousands of tin cans used in a given year to eight percent of their original size, accelerated the rusting process through abrasion, and increased incinerator capacity by 50 percent. In 1927 the new incinerator disposed of 100 tons of garbage

per month during the summer season, and, by 1930, another similar system had been placed on line.³⁰

Electric power was also within the purview of the Santa Fe Railroad, which delivered DC current from its first, pre-1913, steam-generating plant at a cost of thirty cents per kilowatt hour. Like the early septic system, the old plant proved inadequate by the middle 1920s, and in 1925 the Santa Fe Railroad began to build a new, oil-burning plant: the imposing rock building seen today along Village Loop Drive, now without its original smoke stack. Completed in mid-1926, the new plant distributed ample AC current throughout the village via a high-tension underground cable to the "center of park activities." Steam for residential heating, for the Fred Harvey Company laundry, and for electric power immediately dropped to one-fifth the former cost.³¹

Postal services were managed independently by the U.S. Postal Service, but were provided until 1935 from hotels built in the pioneer era. Remote offices had been located at Hance Ranch in 1894 and 1897, at Supai in 1901, and at the Grand View Hotel in 1903. These were tied into the first post office at Grand Canyon Village, established in 1902 in Martin Buggeln's Bright Angel Hotel then relocated to the abandoned, two-story Cameron hotel in 1910, where it remained until housed within a new federal building beside Babbitt's Store in 1935. In the absence of churches or community buildings of any type, the post office was a vital meeting place among early residents, and the postmaster was a dependable source of local gossip. The position through the early 1920s following Buggeln's departure was held by Louisa Ferrall, then her husband, Lannes, both employees, allies, and informants of Ralph Cameron and others resistant to NPS administration. Two postmasters who followed, Charles Donohoe and James Kintner, were also "Cameron men," if not as loyal as the Ferralls. This was only one of many manifestations of defiance to NPS authority evidenced into the early 1930s, serious enough that park managers, irritated to the point of paranoia, often sent and received sensitive correspondence via encoded telegrams. Security remained a problem until Kintner resigned in 1928 and Art Metzger became postmaster through civil service examination, a position he held until 1963.32

Medical services and interment of the dead seemed less pressing issues but were addressed cooperatively between the private and public sectors. In 1919 medical treatment was dispensed by a single Fred Harvey Company nurse in residence at the El Tovar. There was no hospital, and in serious cases treatment relied on finding a doctor among guests or on making a long trip to Williams or Flagstaff. Dr. G.C. Rice of the Public Health Service set up an office in 1920 but resigned in the autumn of 1921 and was replaced

by Dr. H.B. Schnuck, also of the Public Health Service, in January 1922. Schnuck was replaced by a Santa Fe Railroad employee, Dr. J.A. Warburton, in April 1923. These doctors and others that followed periodically practiced in whatever empty boxcar, shack, or cabin was allotted them until the first hospital was completed in 1931. Similarly, those few who happened to die at the South Rim without ties elsewhere, and those who died elsewhere with ties to the canyon, were buried at random on the South Rim until a small cemetery was established in 1919 surrounding the grave site of John Hance. Eight others joined Hance before administrators got around to fencing and platting the site in 1922.³³

Park laborers extended and improved the primitive telephone system originally strung to connect scattered USFS stations and fire towers. They finished stringing a singlewire, magneto-handset system from rim to rim in 1922, connecting the Wylie Way camp to Phantom Ranch, Indian Garden, and Grand Canyon Village. By the following year, lines had been overhauled and consisted of some fifty-nine miles of wire. Hermit Camp was tied into Indian Garden by 1924, and in the following year lines extended from Desert View through the village and westward to the recently constructed Pasture Wash ranger station, from which point the Bureau of Indian Affairs continued it to Supai. During 1927-28 phones were installed along the central corridor at the Tipoff, Ribbon Falls, and Roaring Springs, giving rangers and tourists the opportunity to phone in emergencies from five locations including Phantom Ranch and Cottonwood. In 1928 North Rim visitors could dial long distance from the Grand Canyon Lodge via the transcanyon line to Grand Canyon Village. By 1929 the NPS had completed a ninety-six-mile system of telephone lines, and in that year they contracted with Mountain States Telephone & Telegraph Company to operate an all-day, everyday central system from within the new administration building.³⁴

Administrators addressed other village services on their own, and one of the more frustrating entailed enforcement of regulations, law, and order. Superintendents (and therefore NPS directors) did not dwell on routine police matters in their annual reports, but ranger reports and a few scattered sources reveal an undercurrent of petty lawlessness among residents and contractors. A flurry of construction in the 1920s combined with limited residences, distance from nearby towns, and contractors' disregard for employee welfare spawned tent-camp slums on the village's southern fringe populated by Mexican, American Indian, and European American low-wage laborers. These men often quit or were fired within a few weeks of arrival but lingered to become involved in a number of illegal activities including prostitution and moonshining. Some reports insinuated

racial unrest and the presence of a local chapter of the Ku Klux Klan, whose members included a few of the more prominent pioneers. ³⁵

Police and judicial powers throughout the 1920s rested jointly with rangers, county justices of the peace residing at the South Rim and at Flagstaff, and the nearest U.S. District Court in Prescott. Rangers like any private citizen could make arrests, but miscreants had to be bound over to one of these courts. Local JPs were invariably elected from among antagonistic village residents, so crimes had to be serious enough to warrant very long trips to Flagstaff or Prescott. Coconino County Sheriff Campbell, responding to what he considered a struggle for control of the park, appointed three rangers and the assistant superintendent as deputy sheriffs in 1924, giving staff a little more authority in county and state matters, perhaps, but still requiring a trip to Flagstaff following arrests since there was no local jail. Given the tension between the park and county, even Flagstaff judges might view infractions to park regulations as something less than serious offenses.³⁶ More often than not, administrators simply banished lawbreakers and undesirables rather than press charges. The park service asked the State of Arizona to relinquish jurisdiction as other states had done for parks within their boundaries and hoped for a U.S. commissioner or magistrate within the village, but did not receive this judicial authority until 1959.37

Aside from providing utilities and other essential services required of a burgeoning tourist village, park managers had to be concerned with properly housing employees and equipment. Competing responsibilities, the absence of a |village plan, and inadequate budgets resulted in temporary edifices, multi-functional buildings, false starts, and considerable confusion. Still, Superintendent Peters had no choice but to build a few essential structures. On his own initiative he identified village "administrative" and "industrial" zones then supervised construction of several inexpensive buildings by the summer of 1920, including a warehouse, mess hall, combined stable and blacksmith shop, a superintendent's residence, and a bunkhouse. NPS landscape engineers and Peters's successor, Dewitt L. Reaburn, designed and supervised construction of a mess hall addition, rooming house, "cottage" for employees, and a twelve-man dormitory in 1921, as well as the administrative building completed in November that also functioned over time as an information center, library-museum, and superintendent's residence. This lovely building just north of the Fred Harvey Garage is the park's earliest example of NPS Rustic architecture. It survives because it was built within a "civic group plan" devised by NPS Chief Landscape Engineer Daniel Hull in 1921. Superintendent Walter W. Crosby followed up in the next two years with substantial personnel quarters, a

combination garage and blacksmith shop, carpenter shop, and storage sheds within this plan's administrative zone.³⁸

Hull's village design preceded and influenced Grand Canyon National Park's first "master plan," undertaken in 1923 by the Chicago architectural firm of Graham, Anderson, Probst and White but completed by Hull and approved by Mather in June 1924. This plan, concerned solely with village development, again illustrated the interwoven relationship between the park's principal concessioner and management. The Santa Fe Railroad financed the endeavor and lent its own engineers to the task, but the final blueprint reflected Hull's intent to reinvent the village along lines popular among turn-of-the-century city planners. The developmental blueprint consisting of one annotated village map was not an original design, as it amply revealed elements of "city beautiful" movements in vogue at that time that advocated separation of industrial, commercial, administrative, and residential areas with native landscaping and plentiful open spaces. It also conformed to NPS ideas of the 1910s for "bucolic" service villages within the western parks and strongly resembled earlier U.S. Forest Service plans proposed by landscape architect Frank Waugh. The difference in 1924 was that all those concerned with village development participated in its creation and committed to its fulfillment as funds became available. The 1924 plan remained the pattern for expansion through the early 1950s, and its original intent, though obscured by modern construction, can still be discerned today.³⁹

As administrators wrestled with developments and visitation at Grand Canyon Village prior to 1924, they understandably neglected less-visited areas that could await increased appropriations and manpower. The North Rim remained essentially another park, left to the devices of Elizabeth and Thomas McKee and rangers within the adjacent Kaibab National Forest. Congress, in fact, refused to appropriate funds for its management through Fiscal Year 1924, with the result that administrators could afford to send over only one or two rangers during summer months. These men, set adrift and at first without communications to the South Rim, slept at whatever pioneer or forest service cabins happened to be vacant, often at Jimmy Owens's place at Harvey Meadow, or stayed in the McKees's camp at reduced rates. Since there were no NPS facilities whatsoever, no entrance station, and only 3,000 visitors per year by 1924, one wonders what they could possibly have accomplished other than to circulate among the McKees's guests, act as fire lookouts, and perform a little road maintenance.40

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Grand Canyon's early administrators struggled to improve deficient utilities, curtail conduct unbecoming a national

park, and bring order to the management process. The frenzied period was conspicuous for hard work, inadequate budgets, poor housing, and a fair measure of disorganization and demoralization. William Peters survived only thirteen months but was rewarded for his efforts with the superintendency of Mount Rainier National Park. He was replaced on 5 October 1920 by Dewitt L. Reaburn, the former superintendent at Mount Rainier, who also lasted only thirteen months before resigning, an unusual move among early professional administrators. The superintendent of Sequoia National Park and former Grand Canyon chief ranger, Col. John R. White, filled in for a few months until Col. Walter W. Crosby arrived on 15 February 1922. Crosby remained at his post for only eighteen months, working diligently to help forge the village master plan and reorganize demoralized clerical and ranger staffs before escaping for a trip around the world. Assistant Superintendent George C. Bolton filled in for six months until Crosby returned to serve out the remainder of 1923. He was replaced on 8 January 1924 by the park's sixth head administrator in less than five years, J. Ross Eakin. 41

Attrition among the clerical and ranger staffs was even steeper than among managers. 42 As appropriations for administration, maintenance, enhancements, and protection increased from \$40,000 in 1920 to \$125,000 in 1924, superintendents were able to augment permanent staff from four rangers and an entrance checker to an assistant superintendent, chief ranger, eight rangers, and several clerks. Still, most dollars went toward maintenance and rehabilitation of the more deplorable roads and purchase of road equipment, leaving little for housing and other basic human needs. As a result of difficult conditions and poor salaries, it proved hard to attract what administrators considered good workers, and perhaps those they did hire were unable to tolerate start-up hardships, residents' hostility, and myriad demands imposed by visitation, which had increased from 38,000 in 1919 to 108,000 in 1924. As a result, Col. Crosby found it necessary to reorganize the entire staff in spring 1922 and summer 1923, during which time the entire clerical staff was replaced. Chief Ranger Charles J. Smith and five rangers also resigned in 1923 and could not be replaced immediately, as appropriations for Fiscal Year 1923 had dropped 25 percent from the previous year. The colonel, it seems, bit the bullet to reorganize park forces in order to allow Superintendent Eakin to move forward with a new master plan.43

Eakin did proceed with improvements in 1924, building the village's first community center, a new mess hall, and four employee "cottages" so that all NPS permanent employees were "comfortably housed." As regular appropriations wavered between \$120,000 and \$173,000 during 1925-29, Eakin and his successor, Miner Tillotson, added

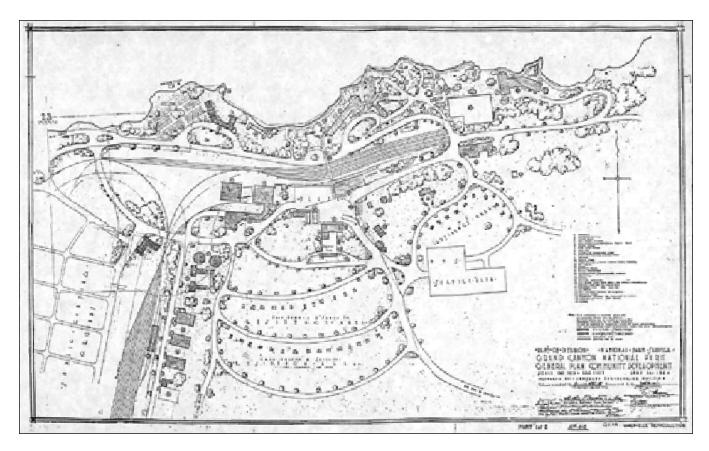


Figure 9.The 1924 village plan mp. The Santa Fe Railroad, with minimal guidance and still less assistance from the U.Sorest Sevice, determined the locationextent, and character of South Rim deelopment surrounding its twenty-acre depot site during 1901-19. With the arrival of the National Park Sevice in 1919, control began to give way to the federal government, although the railroad and leat the Fred Harvey Company continued

to influence gowth with their choices for pital investment. This 1924 village <code>development</code> blueprint represents the <code>pkas</code> first "master plan," created by railroad and NPS <code>abitects</code>. It guided village zoning and construction into the 1950s, and its conceptros faving the rim for commetal services and the forest to the south for residential housing continues to this day

additional housing, a recreational field, an NPS mule and machine storage shed, and a new administrative building in 1929 at the southeast corner of Village Loop and Center Roads. Eakin managed to instill among NPS and concessioner employees an esprit de corps, in part through utility improvements; a new sense of order promised by the village master plan with its residential streets and solidly constructed bungalows; and general cleanup programs that removed much of the filth formerly surrounding the railroad tracks. Better morale was evidenced by the emergence of civic groups like the Parent-Teachers Association, American Legion, and a "Women's Auxiliary," and by the congregation of off-duty employees at the new community center for films, lectures, and dances. 45

Eakin, with a ranger force of twelve in 1925 and a bit more money, was the first superintendent to pay serious attention to management outside the village. To facilitate backcountry patrols, cabins were completed at Desert View, Pasture Wash, and Muav Saddle in 1925, at Kanabownits Spring and Greenland Seep in 1926, and at Cottonwood Flats along Bright Angel Creek in 1926-27. A ranger cabin, warehouse, barn, and machine shed were constructed at the

North Rim's Bright Angel Point in 1925, and duplex cottages along with a few outbuildings followed in 1926. Since 1917 the McKees had secured water on the North Rim by hauling it in wag ons then automobiles from Bright Angel Spring, or by mule and burro from springs just below the rim within Transept Canyon. In 1927 the park began pumping twenty-four gallons per minute from the latter springs to a storage tank that served the camp as well as new administrative buildings. These improvements, combined with definitive plans for new roads and increased visitation, prompted the contract with the Utah Parks Company in the same year.

By 1929 park managers, in close collaboration with the Santa Fe Railroad, Fred Harvey Company, Union Pacific Railroad, and Utah Parks Company, had finished structural improvements that satisfactorily addressed housing, utilities, and other essential services demanded by park residents and the 184,000 visitors who arrived in that year. These developments were completed in the face of visitation that had increased by 500 percent in ten years, due largely to NPS and railroad marketing efforts and improved village conditions. By the mid-1920s the park service recog-

nized the unmistakable visitational trend that fulfilled the political objective of ensuring Grand Canyon's survival as a national park. One can argue that if survival had been their primary objective, as some writers claim, they might well have reined in on development and imposed limits on growth by this year. There was not even a hint, however, that anyone paused to consider limiting development. The absence of debate on this subject, along with unambiguous plans to further polish Grand Canyon's image with enhancements on demand, tends to confirm managers' visions for a middle-class resort and national playground, with no bounds to the number of customers to be pleased.

ROADS, TRAILS, AND CAMPGROUNDS

The development of roads, trails, and campgrounds to entice, accommodate, and delight ever more visitors proceeded hand-in-hand with improvements to essential services through the remainder of the 1920s and 1930s. Emphasis was placed on the expensive task of reconstructing regional and inner-park roads. Despite increasing numbers of western motorists during the 1910s, transportation in 1919 still revolved around transcontinental railroads. Surface roads had not yet progressed beyond the horse-drawn conveyance era. Arizona and Utah governments were

just beginning to organize road commissions and publicize state road systems. Despite the canyon's distance from both state capitals, Utah had upgraded the Arrowhead Highway to connect Salt Lake City with the south-

Figure 10.Supeintendent J R. Eakin (left) and Fred Harvey Company managr Victor Patroso,ca. 1925. Pattroso ran Fred Harvey operations at the South Rim prior to World War II.GRCA 9620.



western part of the state and southern Utah parks, while Arizona had improved the National Old Trails Highway across northern Arizona. Otherwise, nearly all regional roads remained poorly signed, graded-dirt paths at best, more often unsigned parallel ruts, which were usually impassable in winter and following heavy rainfall. Motorists carried plenty of tools; local ranchers and farmers supplemented incomes pulling motor vehicles out of the muck; Fred Harvey buses mired so often that drivers brought along carrier pigeons to signal for help.⁴⁸

In the Grand Canyon region, diminished use since the railway's arrival had only worsened roads south of the rim. By 1919 Bill Bass's road from Williams to Bass Camp had long been abandoned. The wagon path from Ash Fork still reached the village via Rowe Well, but usage had dwindled in favor of an equally treacherous if shorter route from Williams that shadowed the railway tracks then arrived at the rim via Rain Tanks. Motorists who used the unmarked Grandview stage road often got lost amid bewildering ruts that led to isolated ranches and cattle tanks. In 1919-20 Coconino County improved a road from Maine (Parks) that ran east of Red Butte before joining the Williams Road at Rain Tanks, but it remained graded dirt until abandoned in 1928. In 1920 Superintendent Peters wrote unequivocally that the "approach roads to the Grand Canyon National Park are a disgrace to the State of Arizona and Coconino County," and he grieved that 60 percent of transcontinental motorists did not turn north to visit the park. 49

As bad as they were, south-side roads were in far better condition than those approaching the North Rim. Before the early 1930s only adventurous, ignorant, or foolhardy motorists braved the unmaintained Mormon emigrant trail east of Grand Canyon that wound its way from spring to spring through the Painted Desert, crossed the Colorado River at Lees Ferry, and continued atop the sandy hillocks of House Rock Valley to the Kaibab Plateau and Jacob Lake. 50 Arizona couples journeying to and from the temple at St. George had worn deep tracks connecting that town and Rockville to Fredonia and Kanab via Pipe Springs, while freighters had developed an equally menacing path from the railhead at Marysvale south to Kanab. These converged at Fredonia into a set of wagon ruts that neared the Kaibab Plateau, then split to approach Bright Angel Point via Ryan and Big Springs (Edwin Woolley's early tourist path), and via Jacob Lake by a route improved by the forest service in 1913 and pretentiously dubbed the Grand Canyon Highway. These two approach roads converged at VT Park and continued as far as Harvey Meadow, the Woolley Cabin, and Walhalla Plateau, but did not reach Bright Angel Point until 1917-18. They were in such poor condition that during the early 1920s the tiny towns of Fredonia and Kanab supported half a dozen service stations, whose employees spent much of their time combing the Arizona Strip for stranded motorists.51

Grand Canyon administrators lamented the condition of regional roads throughout the 1920s and lobbied for their improvement by federal and state agencies, but they had their hands full trying to improve roads within the park. Beginning in 1920, superintendents paid as many as forty laborers a few dollars per day to widen, partially realign, and grade the South Rim's thirty-two-mile "El Tovar-

Desert View Road" and resurface the park's only paved road, to Hermits Rest. Bill Bass's early wagon path from Rowe Well west to Bass Camp and Topocoba Hilltop remained unimproved, as did all minor service roads and the path to Yavapai Point. At the North Rim, the only roads consisted of the terminal segments of wagon paths out to Point Sublime, Cape Royal, and the Woolley Cabin, worn by cattlemen and pioneer tourism entrepreneurs, and the final three-mile-long segment of the forest approach road to Bright Angel Point, built by the forest service. In 1924 "crude roads" replaced ruts to Point Sublime and Cape Royal, the former built to help fight forest fires and the latter to aid the Bureau of Entomology's war against insect infestations on the Walhalla Plateau. 53

Appropriations in 1925 allowed NPS laborers to build a bridle path to Swamp Point and to begin work on a comparable passage from Desert View to Cape Solitude, completed in the following year. In the same year, Bureau of Public Roads (BPR) engineer Donald Evans arrived to select and survey an entirely new, 132-mile park highway system that administrators hoped to complete in five major phases. This all-at-once approach to park access was only one of more than a dozen such projects undertaken in as many western parks in the 1920s. It was made possible by special funds appropriated in December 1924, as well as by Stephen Mather's decision to build park roads to BPR standards.⁵⁴ Systemwide, engineers like Evans were guided by the park service's own civil engineers and landscape architects, who ensured that planning would result in allweather highways that complemented landscapes with unobtrusive lines, graveled surfaces of locally quarried rock, and rustic-stone culvert headwalls and retaining walls. Grand Canyon's new highways, in combination with regional approaches completed during 1925-36, would represent some of the first and most artistic automotive roads ever built in the western United States. Although periodically widened and resurfaced (and occasionally realigned), they still serve today as the park's major thoroughfares and as the backbone of the region's secondary highway network.

Of the five highways envisioned, a replacement road from Grand Canyon Village to Desert View ranked high in agency priorities and attained a sense of urgency when the Santa Fe Railroad threatened to halt further developments until it was built. Planning had actually begun in 1923, when NPS engineer George E.Goodwin recommended an alignment similar to that of the Hermit Rim Road; that is, a low-speed scenic drive that would snugly embrace the rim. By 1925 Mather and Albright favored a path more or less overlaying the old stage road from Grandview, portions of which lay outside the park boundary. Superintendent Eakin and park engineer Miner Tillotson lobbied for a compromise: a high-speed thoroughfare to follow the flat-

test terrain yet remain close enough to the rim to allow short spurs to major scenic points and pullouts at intervening bays. Following the latter proposal, Evans surveyed the route in spring 1925, and the park road crew completed the grubbing and clearing that summer. Contractors James Vallandingham of Salt Lake City and Pearson & Dickerson of Riverside, California, started work when funds became available in 1927. As completed and surfaced in 1931, the \$380,000, twenty-five-mile-long East Rim Drive ended at Desert View, with spurs to Yavapai, Yaki, Grandview, and Moran Points. A half-mile spur was also built southward from the new highway, from a point four miles west of Desert View, to connect with the Navahopi Road to Cameron. 55

A south approach road emanating from the National Old Trails Highway actually ranked ahead of East Rim Drive, but the controversy that tied funding to acquisition of the Bright Angel Trail delayed construction. Nevertheless, in 1925 BPR engineers completed their survey of an entrance road that would tie into the eventual approach, and park forces grubbed and cleared the fourmile route in the following summer. James Vallandingham won the contract in December 1926 and completed the project simultaneously with his work on East Rim Drive in December 1928. The original alignment in that year, and until the 1950s, left the path of today's approach road at the Moqui Lodge, passed beneath a rustic-style entrance arch built in 1931 at the park boundary, and paralleled today's entrance road before following the line of Shuttlebus, Center, and Village Loop Roads to join East Rim Drive at the Fred Harvey Garage. The entrance station along the old road from Maine was dismantled and a new one placed at a point about fifty yards southeast of today's Boulder Avenue.56

Until the onset of the Great Depression, and occasionally thereafter, NPS and Fred Harvey Company managers seriously considered tourist developments from Grand Canyon Village west as far as Supai. One of the five road projects envisioned in 1925 included a highway in that direction. It seemed sensible to them to build a road similar to East Rim Drive that would reach facilities at the south end of the Bass corridor, access scenic points along the way, and continue on to Supai, Manakacha Point, or at least to the head of the Topocoba Trail. Such a road would also make it easier to deliver the mail, other services, and tourists to the remote Havasupai village, a popular destination since the earliest days of pioneer tourism. In 1926 Evans completed a survey to Manakacha Point, thence down to the village of Supai, that included a spur to Bass Camp. The estimated cost of \$2 million seemed prohibitive, however, and the only road built to the west of Grand Canyon Village during the 1920s was a 3,800-foot service

spur from Rowe Well Road to the new incinerator and sewage plant. 57

Plans to upgrade North Rim roads in 1925 included a three-way intersection at Little Park where the north approach from Jacob Lake would split into separate paths to Cape Royal, Bright Angel Point, and Point Sublime. Those plans changed in 1926, despite an impending boundary extension that would place the intersection within the park. Evans instead surveyed a scenic road that began at Bright Angel Point and descended northward to meet the old approach road at Harvey Meadow. The route then climbed the Walhalla Plateau via Fuller and Neal Canyons and continued along the plateau's east side to a parking lot at Cape Royal. 58 The new twenty-four-mile-long road begun in 1927 closely traced the path of the old wagon road worn by cattlemen and improved by the Bureau of Entomology. It included a 2.9-mile spur to Skidoo Point (Point Imperial) that followed earlier wagon tracks to that scenic overlook. The difficult, serpentine road was completed by three separate California contractors in 1931 at a cost of well over half a million dollars. Plans for the boundary extension north to Little Park delayed construction of a new entrance road until 1929, when two California contractors started work on a ten-mile-long highway from the park entrance station as far south as Harvey Meadow. The North Entrance Road, completed in 1931, followed the 1913 Grand Canyon Highway until reaching Lindberg Hill, where it diverged from the old track to descend in moderate grades through Thompson Canyon to connect with the new Cape Royal Road at the mouth of Fuller Canyon. Today's entrance station at Little Park was built beside the older dirt road in 1928.59

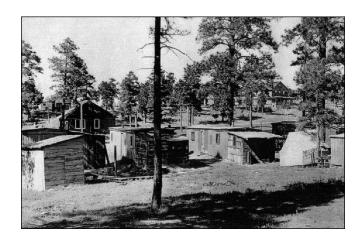
Point Sublime Road had been bladed through forest and park lands in 1924 to fight forest fires, but inclusion of its entire eighteen-mile length within the park in 1927 and popularity among tourists by 1929 prompted Superintendent Miner Tillotson to add the informal path to the regular maintenance schedule. Park Engineer C.M. Carrell, responding to complaints concerning the deplorable condition of the narrow, undrained, "scratch" road, supervised minor reconstruction in 1930 and 1931 by day laborers who reduced grades, straightened curves, installed culverts, and cleared side ditches. It would receive similar attention through the 1930s but was never upgraded to automotive standards. Like roads to Swamp Point, Cape Solitude, and Bass Camp, it would serve only administrative purposes and those few visitors seeking access to the park's backcountry areas.60

Remote Grand Canyon trails had also fallen into disrepair by 1919, as the railroad funneled tourists to the village and inner-canyon trips narrowed to the central corridor. The once popular South Bass, Grandview, New Hance, and

Tanner Trails, as well as the less-frequented North Bass, Thunder River, and Nankoweap Trails, had returned to prepioneer condition, with large segments obliterated by erosion. Of the Santa Fe Railroad's Hermit Trail and the central corridor trails, consisting of Ralph Cameron's Bright Angel Trail linked with David Rust's trail up Bright Angel Creek, only the Hermit had been maintained to high standards. The Bright Angel Trail and David Rust's trail had received no regular repair since 1907. 61

Despite Stephen Mather's vision for inner-canyon development, park managers declined to renovate remote trails when nearly all visitors seemed content with mule rides along the central corridor and Hermit Trail. During 1919-24, they instead spent modest appropriations on simple maintenance of the most used paths, stationing "repairmen" at intervals along the Hermit and corridor trails. In addition to clearing rock slides, the small trail crew—mostly Havasupais armed with picks and shovels—made modest improvements to the Tonto Trail from Hermit to Bright Angel in 1920 and to lower portions of Rust's trail as far upstream as Cottonwood during 1920-26. In 1921 administrators also built a wooden suspension bridge to replace Rust's old cable across the river and rebuilt portions of the Dripping Springs Trail in 1924.

Effective trail construction and repair coincided with advancements in road-building technology. Using the Hermit as a standard for tread width and associated features, the trail crew went to work reconstructing the lower



segment of Rust's trail to the North Rim through "The Box" in 1920-21, eliminating forty of the original ninety-four crossings of Bright Angel Creek. During the next few years, superintendents

Figure 11.Emplyee housing along the railroad tacks near the wye, 1932, with the post office (former Cameon Hotel) in the right lackground GRCA 11887.

and park engineer Tillotson considered alternate routes to the Tonto Platform to avoid the box canyon, but rejected all of them due to excessive grades, consequent exposure to "the blazing heat of a desert sun," and the distance required to escape the original route. By 1925 Eakin and Tillotson had decided to raise the trail out of the creek bed and widen it through The Box to Cottonwood, eliminating all but seven crossings of the creek, which were spanned with steel beam and concrete bridges in the following year. During 1926-28 the crew continued the work to Bright Angel Point, bypassing Rust's original upper alignment in favor of an entirely new trail up Roaring Springs Canyon to intersect the North Entrance Road. 63

Construction of the South Kaibab Trail to complete a reengineered central corridor was motivated by the controversy surrounding acquisition of the Bright Angel Trail. Federal officials, from Arizona's first senators down to forest and park service rangers, had been anxious to acquire the Bright Angel Trail from Coconino County since 1906, and by 1924 Congress had offered to build a new South Approach Road in exchange for the only toll trail remaining within the National Park System. Administrators as well as civic leaders in the gateway towns agreed that the deal would serve everyone's interests, the park service eliminating an inholding and gaining control of inner-canyon access, town merchants receiving benefit from a more accessible national park. Local opposition, however, inflamed by Senator Ralph Cameron and his canyon cronies, prompted county officials to place the measure on the 1924 ballot where it was soundly rejected. Congressman Hayden and NPS officials, long accustomed to local opposition and prepared for such an outcome, had written the act authorizing trail purchase in a manner that would allow a new trail to be built as an alternative, and Tillotson had already completed surveys from Yaki Point to The Tipoff. The votes had hardly been counted when indignant administrators began construction in December 1924. 64

Miner Tillotson, always the engineer throughout his long NPS career, was particularly proud of the \$73,000 "Yaki Trail," as it was called for a brief time after its completion in June 1925. Built where no trail had gone before, the route was chosen for both practical and aesthetic reasons. Except for the unavoidable, precipitous one-thirdmile segment below Yaki Point, engineers chose alignments to afford protection from landslides, exposure to year-round sunshine and summer breezes, and unobstructed canyon views. Portable Ingersoll-Rand air compressors powering jackhammers and drills allowed workmen to chisel grades not exceeding 18 percent on the most difficult cliff-side sections. John Brown, an Arizona Strip resident, led a crew of fifteen local Mormon laborers from the Colorado River up to The Tipoff, realigning the old cable trail to the Tonto Platform. Chick Seavey, who would later supervise CCC crews at the canyon, guided twenty laborers who worked below Yaki Point. Good-natured rivalry between the two

teams resulted in a superb, 6.5-mile-long, five-foot-wide "mountain" trail. Four buildings and corrals located near the trailhead were built in 1926-29 to serve as a Fred Harvey Company guides' residence, a ranger residence, and NPS and Fred Harvey Company mule barns. The \$40,000, 440-foot-long, five-foot wide Kaibab Suspension Bridge was completed in 1928, replacing the seven-year-old bridge immediately downstream. ⁶⁵

The suspension bridge was just nearing completion in 1928 when Coconino County, free at last of Ralph Cameron's influence, ceded the Bright Angel Trail to the federal government in exchange for the new approach road. Administrators faced with the maintenance of two trails leading to the same place considered abandoning the Bright Angel Trail, but soon recognized its advantage as an alternate path to the river and as access to Indian Garden, the future source of South Rim water. 66 Tillotson and Carrell therefore undertook its reconstruction and realign ment in three phases: the middle segment (1929-30), the upper segment (1930-31), and the lower segment (1938-39), at a total cost of \$70,000. Upon completion, the Bright Angel Trail would end at the Colorado River Trail (finished in 1936), thereby offering greater flexibility for inner-canyon visitors. 67

Roads and trails were engineered to entice motorists to the park and to allow them to access in comfort and safety scenic vistas beside and beneath canyon rims. As this strategy paid dividends, administrators assumed responsibility for developing formal campgrounds to accommodate the swelling number of park visitors. NPS policy ceded indoor accommodations to the Fred Harvey Company, which had housed upscale clients in the El Tovar and visitors of more modest means at the Bright Angel Hotel and Camp since 1905. These establishments satisfied those visitors, called "dudes" by early residents, who arrived by rail with little more than cash, cameras, and suitcases, but did not serve the new wave of "sagebrushers" who came by private automobile with less money but plentiful camping gear strapped to running boards. 68 Park managers decided that formal campgrounds would best attract and please the new type of tourist and at the same time limit the number of moreintrusive hotels. In terms of administrative control, these sites also posed a better solution than at-large camping, the de facto policy tolerated by former forest service managers.

NPS philosophy concerning campgrounds in the 1920s and 1930s entailed three concepts: that they would remain free on a first-come, first-served basis; that as many as possible would be equipped with every amenity administrators could furnish and visitors demanded; and that their number, placement, and level of amenities would coincide with visitor demographics. By the summer of 1920 the park had improved a single public campground southeast of the Fred



Figure 12. Grand Canyon Village, ca.1924, from an army biplane, facing west/southwest.Major stuctures like the depotHopi House and El Tovar are visible on the lowr left with the Brown Building (a Fred Harvey Company dorm), Bright Angl Hotel complex, and Powell Lodge visible on the upper right.Informal paths along the rim (right), the original alignment ofthe Hermit Road, and the railway wye are also clear eferences.Note that the space in the center now occupied by the Thunderbird Lodge and Arizona Steakhouse was open and used for rimside parking until the 1930s.GRCA

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Harvey Garage, conveniently accessed by roads from Grandview and Rain Tanks. In 1921 the Babbitt-Polson company built its general store adjacent to the campground to provide more convenient service. In 1922 park laborers enlarged the camp and opened another near Sanford Rowe's operations three miles south of the village. By 1926 administrators had added primitive campgrounds at Grandview and Desert View.

The number of motorists visiting Grand Canyon exceeded rail passengers during the summer months of 1925, for the entire sea-

son of 1926, and ever after, prompting administrators to add campgrounds. At the same time, in anticipation of new roads, they began charging a one dollar automotive entrance fee. The park added a developed campground at Bright Angel Point on the North Rim in 1926 and in 1927 relocated the headquarters camp to the vicinity of the Fred Harvey Company's new Motor Lodge (today's Maswik Lodge), which served motorists with a central lodge, delicatessen, and twenty "housekeeping cottages." In the

same year 13,500 automobiles brought 43,500 campers to the South Rim, most of whom chose flush toilets, fire grills, tables, running water, and firewood at the new head-quarters camp. The Grandview campground was abandoned about this time, but with the number of campers increasing to more than 52,000 in 1929, additional sites were added below the rim at Ribbon Falls and Indian Garden, with still more planned for Point Imperial, Point Sublime, Havasupai Point, and other rimside locations. In the same year the Fred Harvey Company increased the number of its housekeeping cottages at the Motor Lodge to fifty-seven, added twenty-five tent cabins to the Bright Angel Lodge, and began to plan for an enlarged Bright Angel Point complex.

On the North Rim, the Wylie Way cabins and NPS campground at Bright Angel Point were moved to the location of today's camp area in late 1927 to make room for the new Grand Canyon Lodge. In 1928 administrators designated "temporary" or "secondary" (undeveloped) campsites throughout the park at Roaring Springs, the foot of the Bright Angel Trail, Cedar Ridge, McKinnon Point, "Purple River," and Neal Springs. The latter site, at the intersection of the Cape Royal and Point Imperial Roads, had been set aside as a construction camp along the Cape Royal Road in 1928 and was later used as a CCC camp before abandonment. In 1929 the Utah Parks Company added more cabins to the Grand Canyon Lodge, bringing the total to one hundred standard duplexes and fifteen deluxe four-room cabins, and considered a similar development at Cape Royal.72

As the 1920s drew to a close, the National Park Service and its private partners had gone a long way toward recreating Grand Canyon into one of the more popular tourist destinations in the American West. Opposition presented by pioneer residents had been mostly overcome by a new alliance among federal legislators and bureaucrats, county businessmen, and corporate concessioners who attracted and satisfied nearly 200,000 annual visitors with in-park utilities and services that nearly everyone thought essential. Relying on Stephen Mather and Horace Albright to bolster federal appropriations and on the Santa Fe and Union Pacific Railroads to help market the "all-season resort," local administrators focused on concession agreements that ensured control over millions of dollars in private investments to house, feed, supply, and entertain scenic consumers. The NPS kept its half of the federal-private bargain by investing its appropriations in administrative buildings, roads, trails, and campgrounds. All of the principal players agreed that much remained to be done, but the pattern and plans had been set for additional building programs that promised to fix management policy to one of meeting unlimited visitor numbers and demands.